AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Cancelled)

2. (Previously Presented) The method according to claim 17, wherein the repository framework metadata is XML ("Extensible Markup Language").

3. (Cancelled)

4. (Previously Presented) The method according to claim 17, wherein the at least one service includes object oriented access, versioning, persistence and change management.

5. (Previously Presented) The method according to claim 2, wherein said transforming the meta-model data into repository framework metadata is achieved using XSL ("Extensible Style Language").

6-9. (Cancelled)

10. (Previously Presented) The method according to claim 18, wherein the at least one service includes versioning, object-oriented access, persistence and change management.

11. (Cancelled)

12. (Previously Presented) The system of claim 19, wherein the visual representation of the application framework metadata utilizes at least a subset of UML ("Unified Modeling Language").

13-14. (Cancelled)

15. (Previously Presented) The system of claim 20, further comprising a database storing versions of the application object repository to provide migration of data stored in the application object repository.

16. (Cancelled)

17. (Currently Amended) A method for generating a software development repository to reflect extensions in an application framework that supports an application, the method comprising:

in a multi-layer modeling architecture, ~~responsive to the application framework extensions,~~ defining an application framework in a second layer using a common modeling language in a third layer, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application, and wherein application framework metadata representing application framework extensions and occupying a first layer are defined by the application framework, the application framework extensions providing additional application functionality;

defining an application object repository framework related to the application framework by modeling the ~~dynamically modeling an~~ application object repository framework in [[a]] the first layer using repository constructs and semantics defined by a repository framework model in [[a]] the second layer, wherein the repository framework model is defined by [[a]] the common modeling language in [[a]] the third layer that also models the application framework in the second layer~~, wherein the application framework supports the application by providing application constructs and semantics to structure and provide functionality for the application, and wherein the application framework extensions provide additional functionality to the application framework~~;

responsive to new application framework extensions, generating an application object repository supported by the application object repository framework and conforming to the application framework with the new application framework extensions, comprising:

generating application framework metadata representing the application framework with the new application framework extensions, and occupying the first layer in the multi-layer modeling architecture as meta-model data, wherein the application framework metadata is generated using the repository constructs defined by the repository framework model in the ~~first~~ second layer;

upon said generating, validating the generated meta-model data with respect to the repository framework model constructs;

upon said validating, transforming the meta-model data into repository framework metadata, the repository framework metadata representing an intermediate representation of [[~~an~~]] the application object repository conforming to the application framework with the new application framework extensions and occupying the first layer of the modeling architecture, wherein the repository framework metadata includes repository schema metadata and repository runtime metadata, wherein the repository schema metadata defines extensions to the schema of the application object repository framework and the repository runtime metadata defines extensions to runtime services of the application object repository framework;

transforming the repository framework metadata into application object repository source files using a predefined transformation template, the source files including a runtime source file and a database schema script; [[~~and~~]]

~~generating an application object repository from the application object repository source files, which comprises:~~

generating an application object repository schema from the database schema script, the application object repository schema defining a relational database structure for storing the application metadata representing the application framework extensions; and

compiling the runtime source file to generate an executable component, the executable component providing at least one database service for object-oriented interaction with the stored application metadata in the application object repository; and

upon generation of the application object repository, migrating previously generated metadata conforming to earlier application object repositories to the generated application object repository.

18. (Currently Amended) A method for generating a software development repository to reflect changes in an application framework that supports an application, the method comprising:

in a multi-layer modeling architecture, ~~responsive to a change in an application framework,~~ defining an application framework in a second layer using a common modeling language in a third layer, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application, and wherein application framework metadata representing application framework extensions and occupying a first layer are defined by the application framework, the application framework extensions providing additional application functionality;

defining an application object repository framework related to the application framework by modeling the ~~dynamically modeling an~~ application object repository framework in [[~~a~~]] the first layer using repository constructs and semantics defined by a repository framework model in [[~~a~~]] the second layer, wherein the repository framework model is defined by [[~~a~~]] the common modeling language in [[~~a~~]] the third layer that also models the application framework in the second layer; and ~~; wherein the application framework supports the application by providing application constructs and semantics to structure and provide functionality for the application;~~;

responsive to new application framework extensions, generating an application object repository supported by the application object repository framework and conforming to the application framework with the new application framework extensions, comprising:

receiving a UML representation of application framework metadata representing the application framework with the new application framework extensions, and occupying the first layer in the multi-layer modeling architecture, the application framework metadata specified utilizing predefined UML constructs and repository constructs defined by the repository framework model in the second layer;

upon said receiving, transforming the application framework metadata into XML repository framework metadata representing an intermediate representation of the application object repository conforming to the application framework with the new application framework extensions and occupying [[~~a~~]] the first layer of the modeling architecture, the repository framework metadata being a function of the repository framework model and the common modeling language, wherein the repository framework metadata includes repository schema metadata and repository runtime metadata, wherein the repository schema metadata defines extensions to the schema of the application object repository framework and the repository runtime metadata defines extensions to runtime services of the application object repository framework;

transforming the XML repository framework metadata into application object repository source files using a predefined XSL transformation template, the source files including a runtime source file and a database schema script; [[~~and~~]]

~~generating an application object repository from the application object repository source files, which comprises:~~

generating an application object repository schema from the database schema script using OSQL ("object-oriented SQL"), the application object repository schema defining a relational database structure for storing application metadata representing application development objects and the relations between the application development objects compliant with the application framework changes; and

compiling the runtime source file to generate an executable component, the executable component providing at least one database service for object-oriented interaction with the stored application metadata in the application object repository.

19. (Currently Amended) A system for generating an object repository to reflect changes in an application framework, the system comprising:

an interface to receive a visual representation of application framework metadata representing an application framework and changes to the application framework, wherein the application framework metadata conforms to repository constructs defined by an application object repository framework model;

a processor; and

a memory, coupled to the processor, storing instructions adapted to be executed by the processor to:

in a multi-layer modeling architecture, ~~responsive to a change in an application framework,~~ define the application framework in a second layer using a common modeling language in a third layer, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application, and wherein the application framework metadata representing the application framework changes and occupying a first layer are defined by the application framework, the application framework changes providing additional application functionality;

define the application object repository framework related to the application framework by modeling the ~~dynamically model an~~ application object repository framework in [[a]] the first layer using repository constructs and semantics defined by [[a]] the repository framework model in [[a]] the second layer, wherein the repository framework model is defined by [[a]] the common modeling language in [[a]] the third layer that also models the application framework in the second layer~~, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application~~;

responsive to the application framework changes, generate an application object repository supported by the application object repository framework and conforming to the application framework with the application framework changes, comprising:

transform the received application framework metadata into XML repository framework metadata representing an intermediate representation of the application object repository conforming to the application framework with the application framework changes and occupying [[a]] the first layer of the modeling architecture, the repository framework metadata being a function of the repository framework model and the common modeling language;

transform the XML repository framework metadata into application object repository source files using a predefined XSL transformation template, the source files including a runtime source file and a database schema script; [[and]]

~~generate an application object repository from the application object repository source files, which comprises:~~

generating an application object repository schema from the database schema script using OSQL ("object-oriented SQL"), the application object repository schema defining a relational database structure for storing application metadata representing application development objects and the relations between the application development objects compliant with the application framework changes; and compiling the runtime source file to generate an executable component, the executable component providing at least one database service for object-oriented interaction with the stored application metadata in the application object repository.

20. (Currently Amended) A system to generate an object repository to providing generic migration of previously stored data in a software development repository to reflect changes in an application framework, the system comprising:

an interface to receive application framework metadata representing an application framework and changes to the application framework, wherein the application framework metadata conforms to repository constructs defined by an application object repository framework model;

a processor; and

a memory, coupled to the processor, storing instructions adapted to be executed by the processor to:

in a multi-layer modeling architecture, ~~responsive to a change in an application framework,~~ define the application framework in a second layer using a common modeling language in a third layer, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application, and wherein application framework metadata representing the application framework changes and occupying a first layer are defined by the application framework, the application framework changes providing additional application functionality;

define an application object repository framework related to an application framework by modeling the ~~dynamically modeling an~~ application object repository framework in [[a]] the first layer using repository constructs and semantics defined by [[a]] the repository framework model in [[a]] the second layer, wherein the repository framework model is defined by [[a]] the common modeling language in [[a]] the third layer that also models the application framework in the second layer~~, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application~~;

transforming the received application framework meta-data into repository framework metadata representing an intermediate representation of the application object repository conforming to the application framework with the application framework changes and occupying [[~~a~~]] the first layer of the modeling architecture, the repository framework metadata being a function of the repository framework model and the common modeling language;

transforming the repository framework metadata into application object repository source files using a predefined transformation template, the source files including a runtime source file and a database schema script;

generating an application object repository from the application object repository source files, which comprises:

generating an application object repository schema from the database schema script, the application object repository schema defining a relational database structure for storing application metadata representing application development objects and the relations between the application development objects compliant with the application framework changes; and

compiling the runtime source file to generate an executable component, the executable component providing at least one database service for object-oriented interaction with the stored application metadata in the application object repository; and

transforming the previously stored data into a format compatible with the generated application object repository utilizing the repository framework metadata.

21. (Currently Amended) A method for providing generic migration of previously stored data in a software development repository to reflect changes in an application framework, the method comprising:

in a multi-layer modeling architecture, ~~responsive to a change in an application framework,~~ defining an application framework in a second layer using a common modeling language in a third layer, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application, and wherein application framework metadata representing application framework extensions and occupying a first layer are defined by the application framework, the application framework extensions providing additional application functionality;

defining an application object repository framework related to the application framework by modeling the ~~dynamically modeling an~~ application object repository framework in [[a]] the first layer using repository constructs and semantics defined by a repository framework model in [[a]] the second layer, wherein the repository framework model is defined by [[a]] the common modeling language in [[a]] the third layer that also models the application framework in the second layer~~, wherein the application framework supports an application by providing application constructs and semantics to structure and provide functionality for the application~~;

receiving application framework meta-data representing the application framework with the application framework changes and occupying the first layer in the multi-layer modeling architecture, the application framework metadata specified utilizing repository constructs defined by the repository framework model in the second layer;

upon said receiving, transforming the application framework meta-data into repository framework metadata representing an intermediate representation of the application object repository conforming to the application framework with the application framework changes and occupying [[a]] the first layer of the modeling architecture, the repository framework metadata being a function of the repository framework model and the common modeling language, wherein the repository framework metadata includes repository schema metadata and repository runtime metadata, wherein the repository schema metadata defines extensions to the schema of the application object repository framework and the repository runtime metadata defines extensions to runtime services of the application object repository framework;

transforming the repository framework metadata into application object repository source files using a predefined transformation template, the source files including a runtime source file and a database schema script;

generating an application object repository from the application object repository source files, which comprises:

generating an application object repository schema from the database schema script, the application object repository schema defining a relational database structure for storing application metadata representing application development objects and the relations between the application development objects compliant with the application framework changes; and

compiling the runtime source file to generate an executable component, the executable component providing at least one database service for object-oriented interaction with the stored application metadata in the application object repository; and

transforming the previously stored data into a format compatible with the generated application object repository utilizing the repository framework metadata.

22. (Previously Presented) The method of claim 17, wherein the application object repository source files are C++ files.

23. (Previously Presented) The method of claim 18, wherein the application object repository source files are C++ files.

24. (Previously Presented) The method of claim 21, wherein the application object repository source files are C++ files.